



Service Mesh for



Java Developers

NASHVILLE JUG, SEPTEMBER, 2023

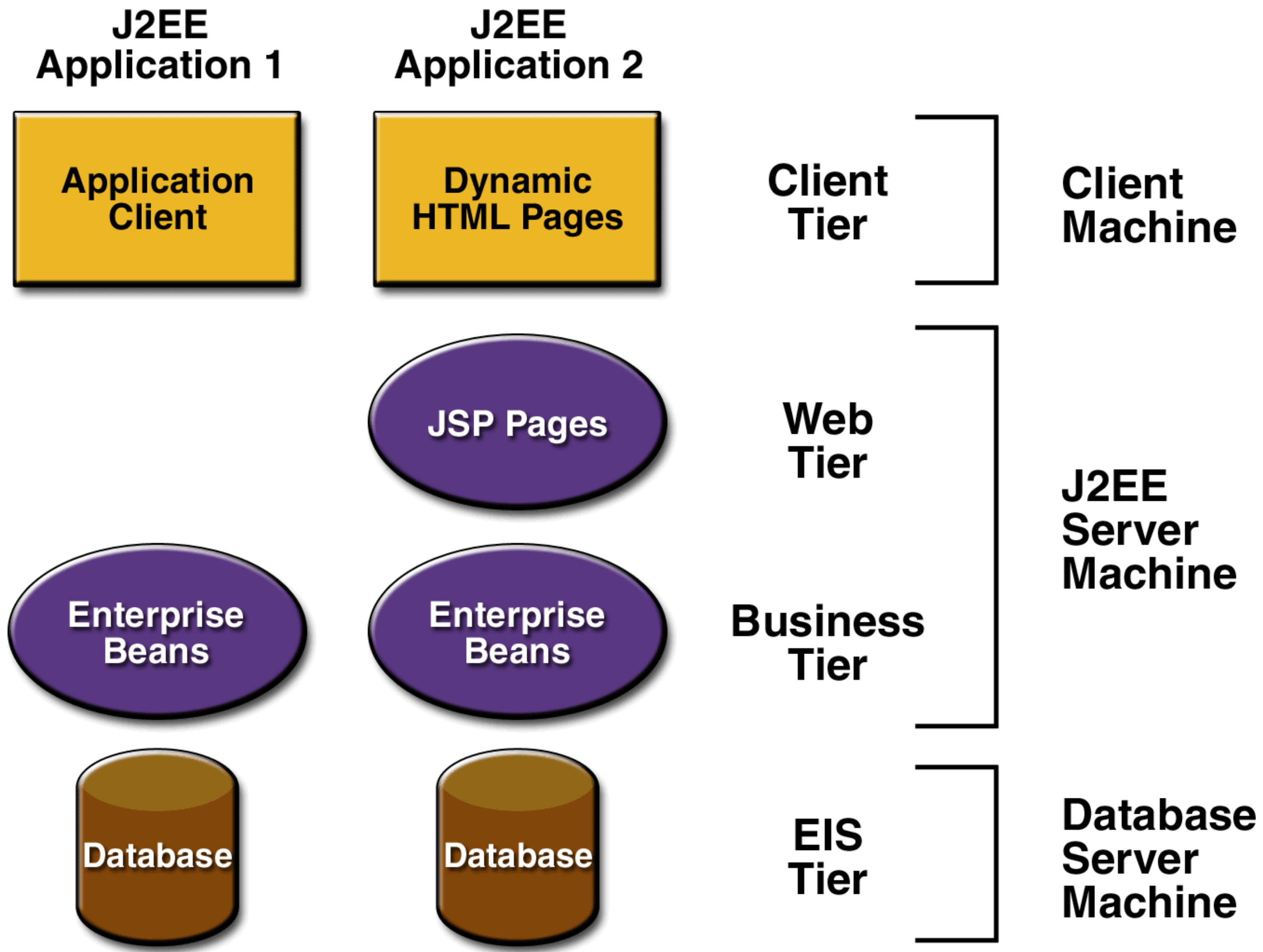
@gamussa | @NashvilleJUG | @thekonginc

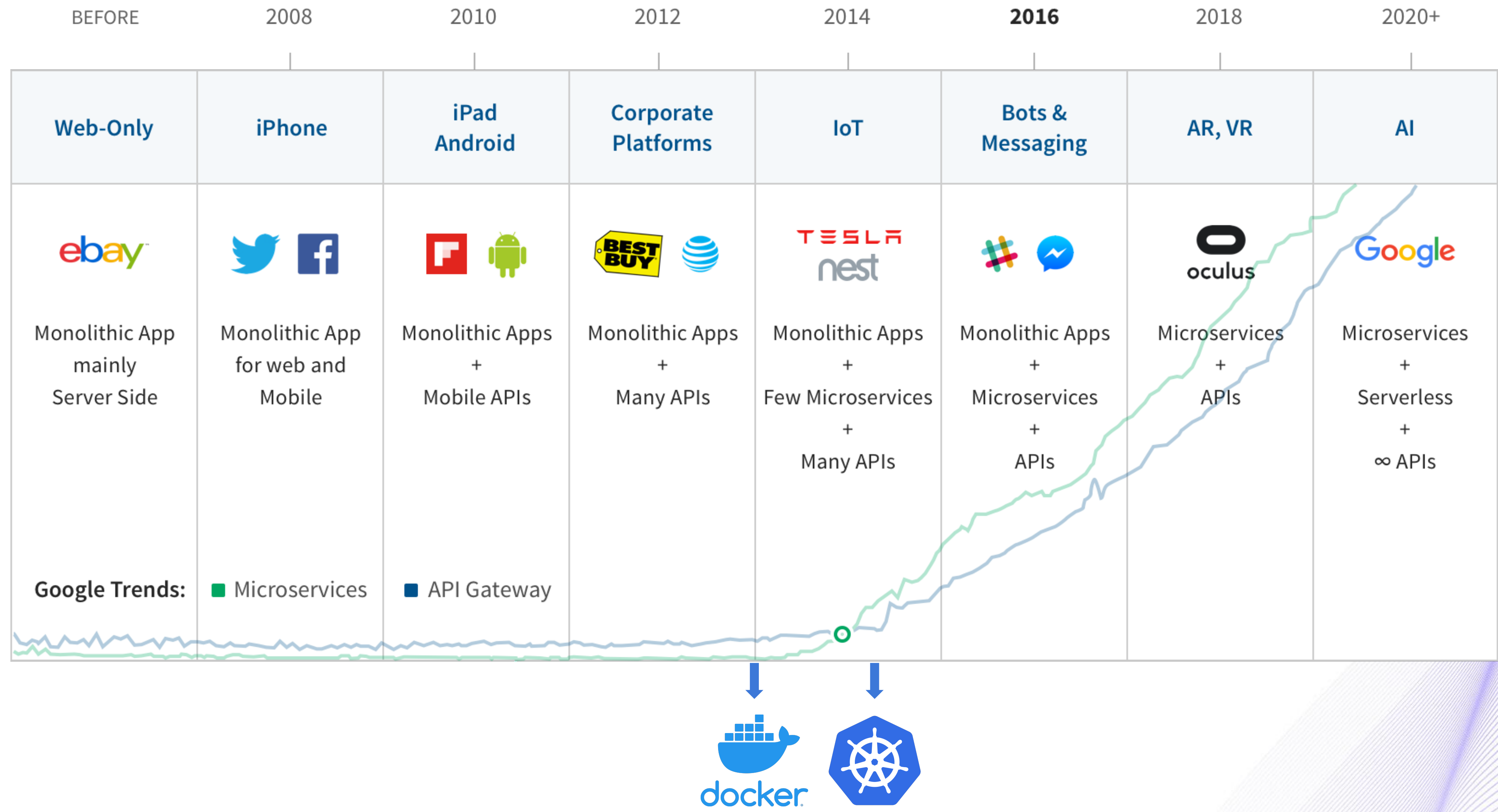
<https://gamov.dev/kuma4devs>



IT USED TO BE SO SIMPLE...









An action scene from a movie set in a dense jungle. In the foreground, a man with a beard and a tactical vest looks off to the side. Behind him, another man is shouting with his mouth wide open. In the background, a soldier is firing a rifle, with a bright muzzle flash visible. The scene is overlaid with large, bold, yellow text.

***REFACTORING TO
MICROSERVICES***

Viktor

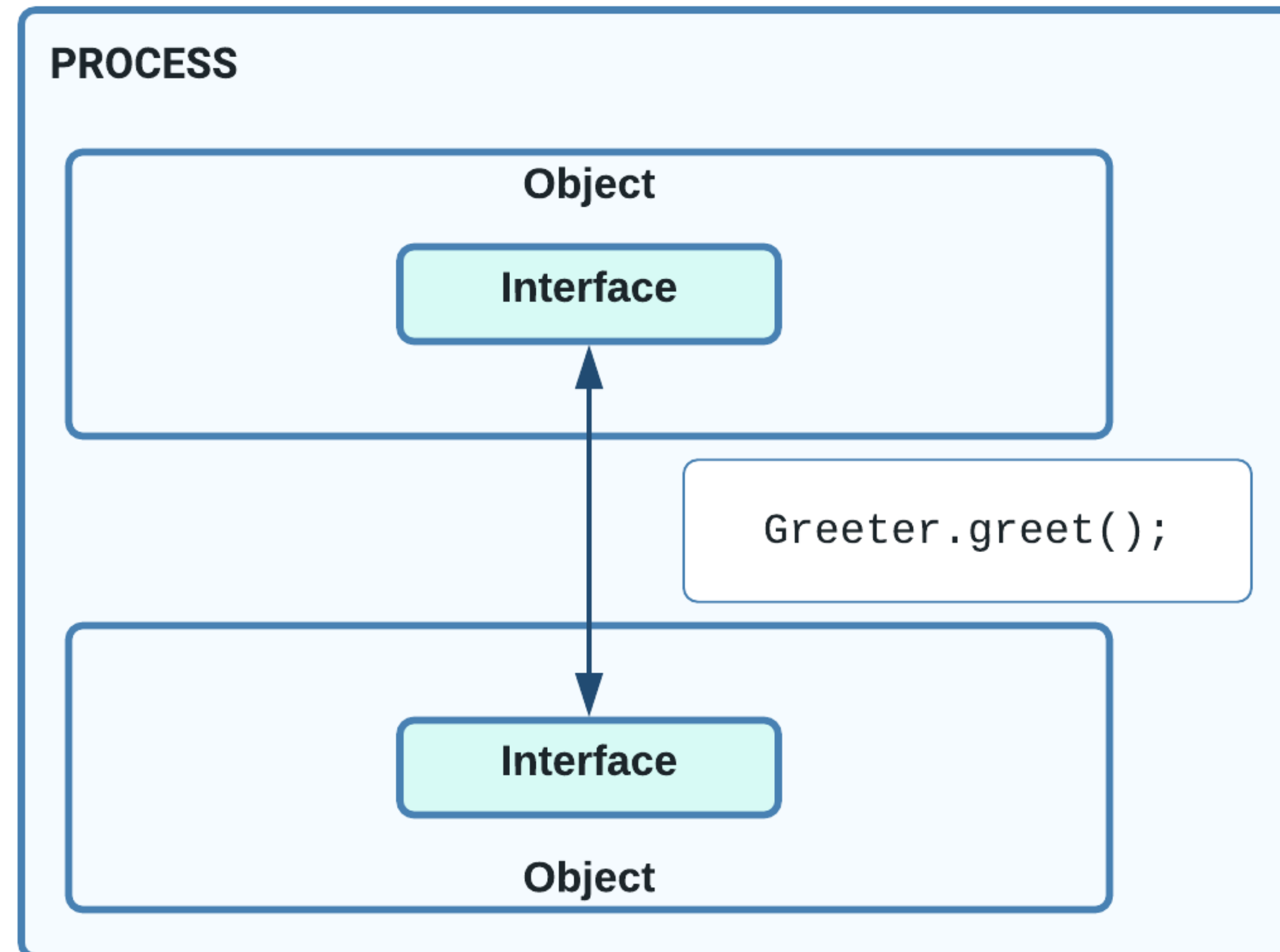
GAMOV

Principal Developer Advocate | Kong

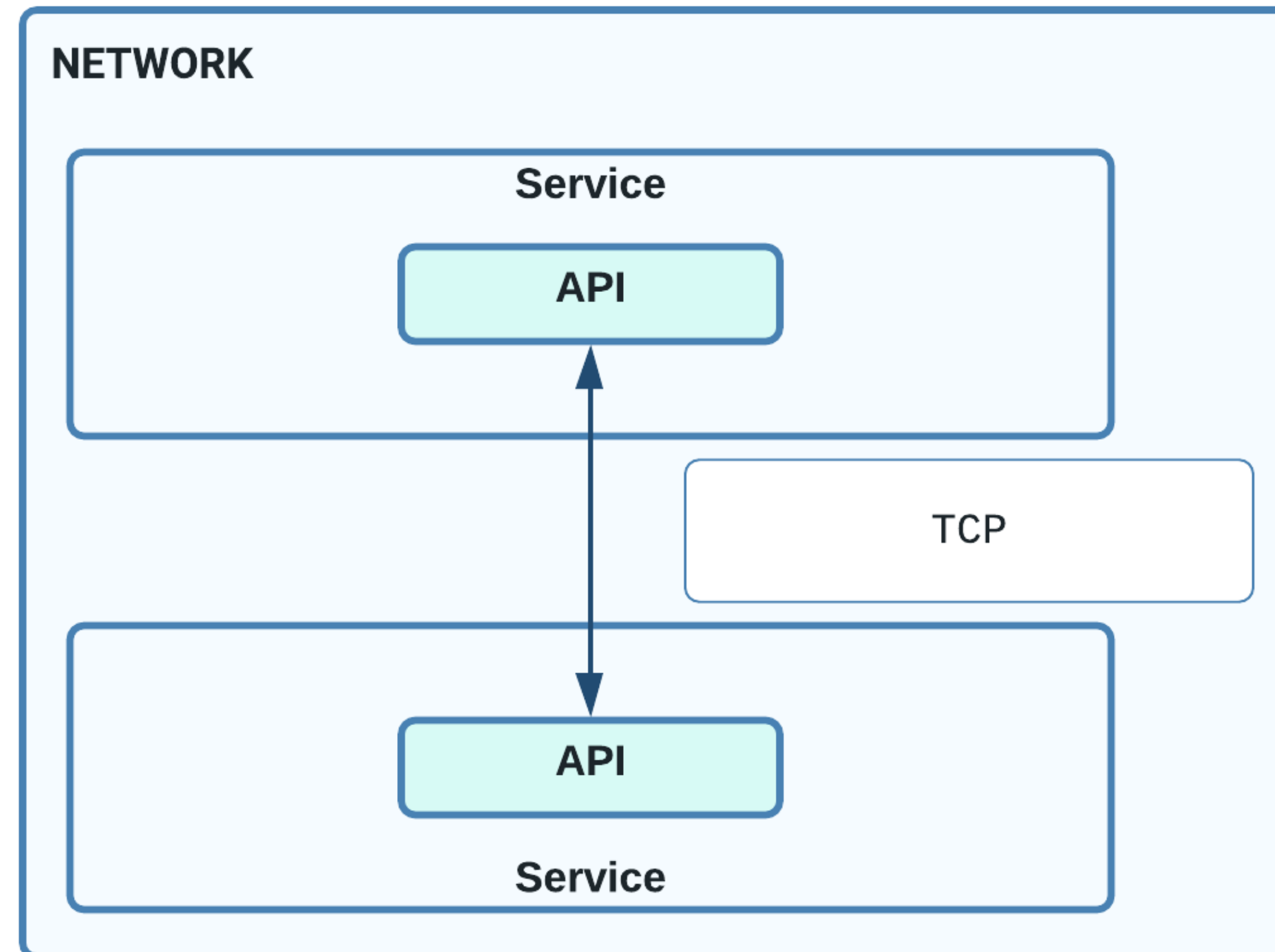
Twitter X: @gamussa



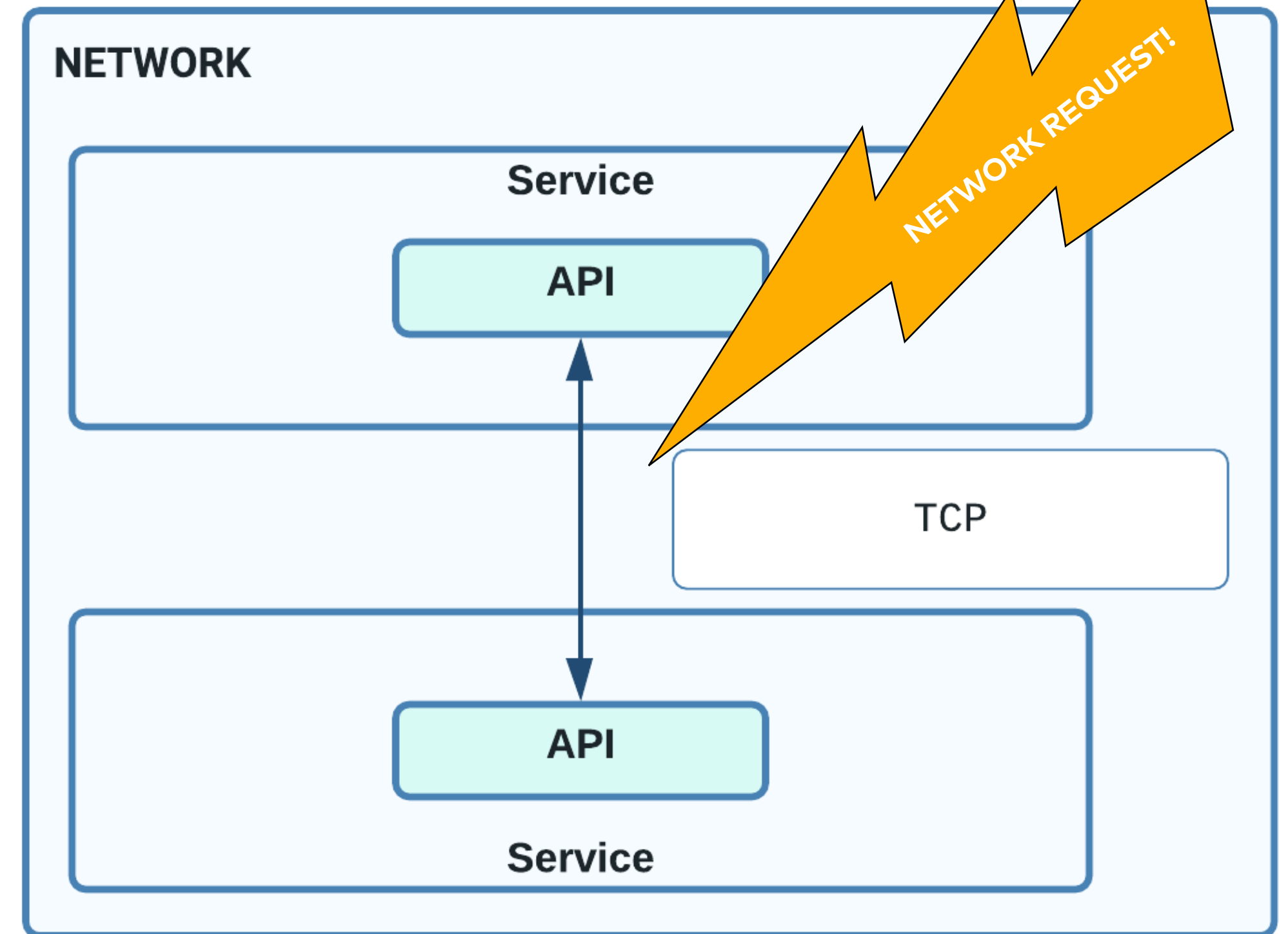
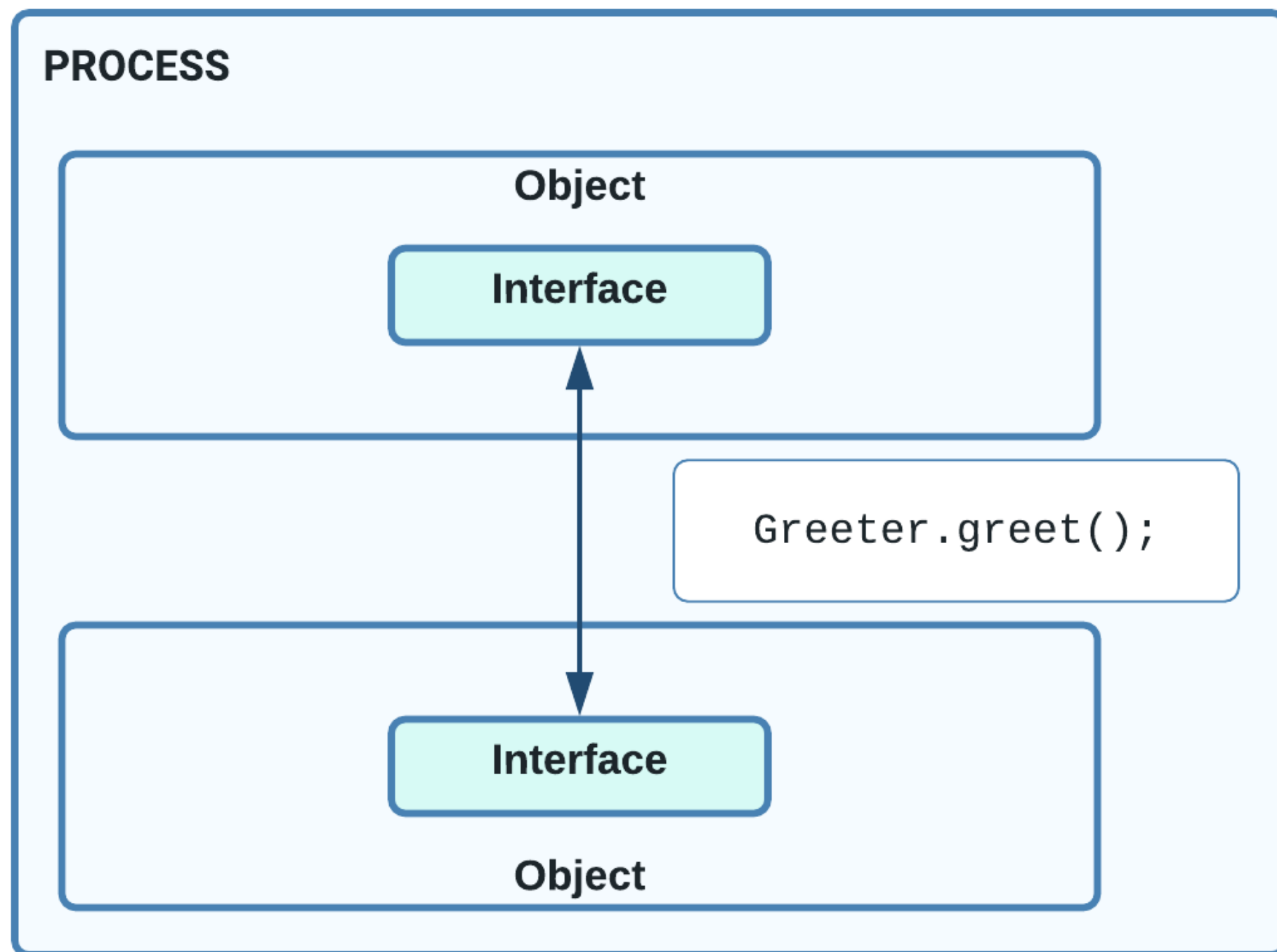
Network is a Computer

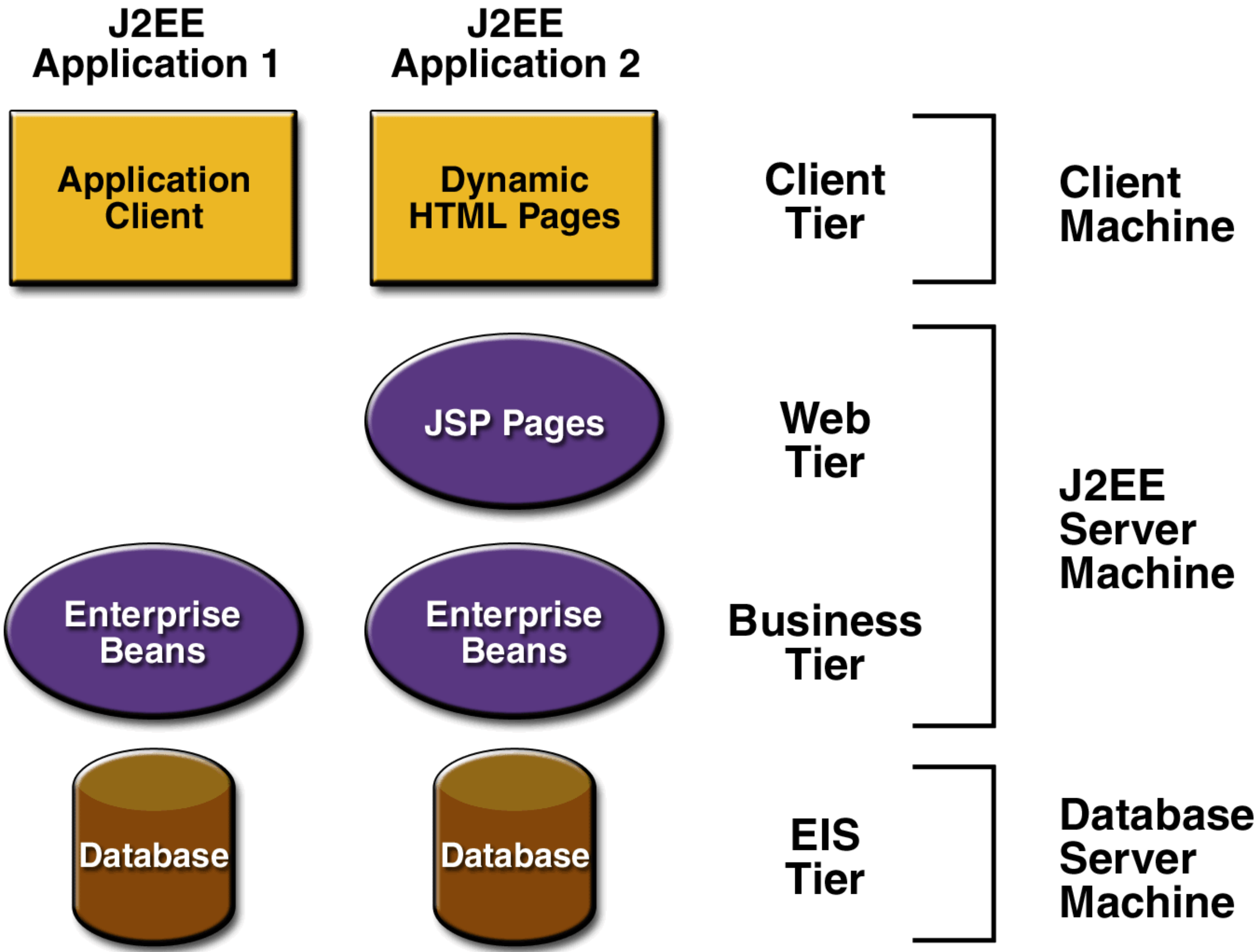


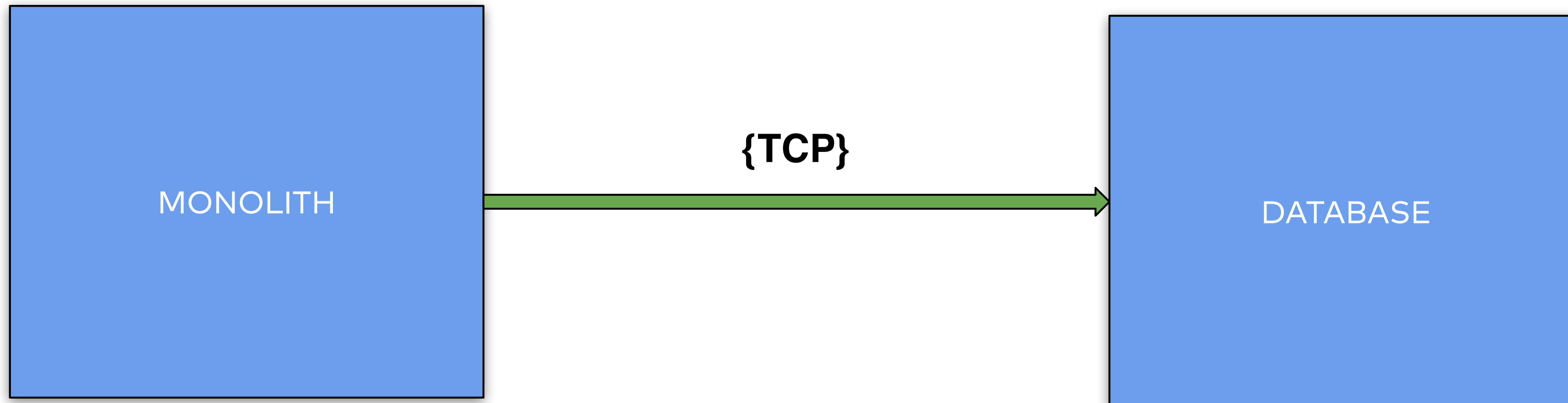
Network is a Computer



FROM CPU TO NETWORK







KNOWN NETWORK PROBLEMS

ENCRYPTION

IDENTITY

TRAFFIC ACL

ROUTING

VERSIONING

DEPLOYMENTS

OBSERVABILITY

LOGGING

TRACING

RESILIENCY

ZERO-TRUST

CHAOS

KNOWN NETWORK PROBLEMS

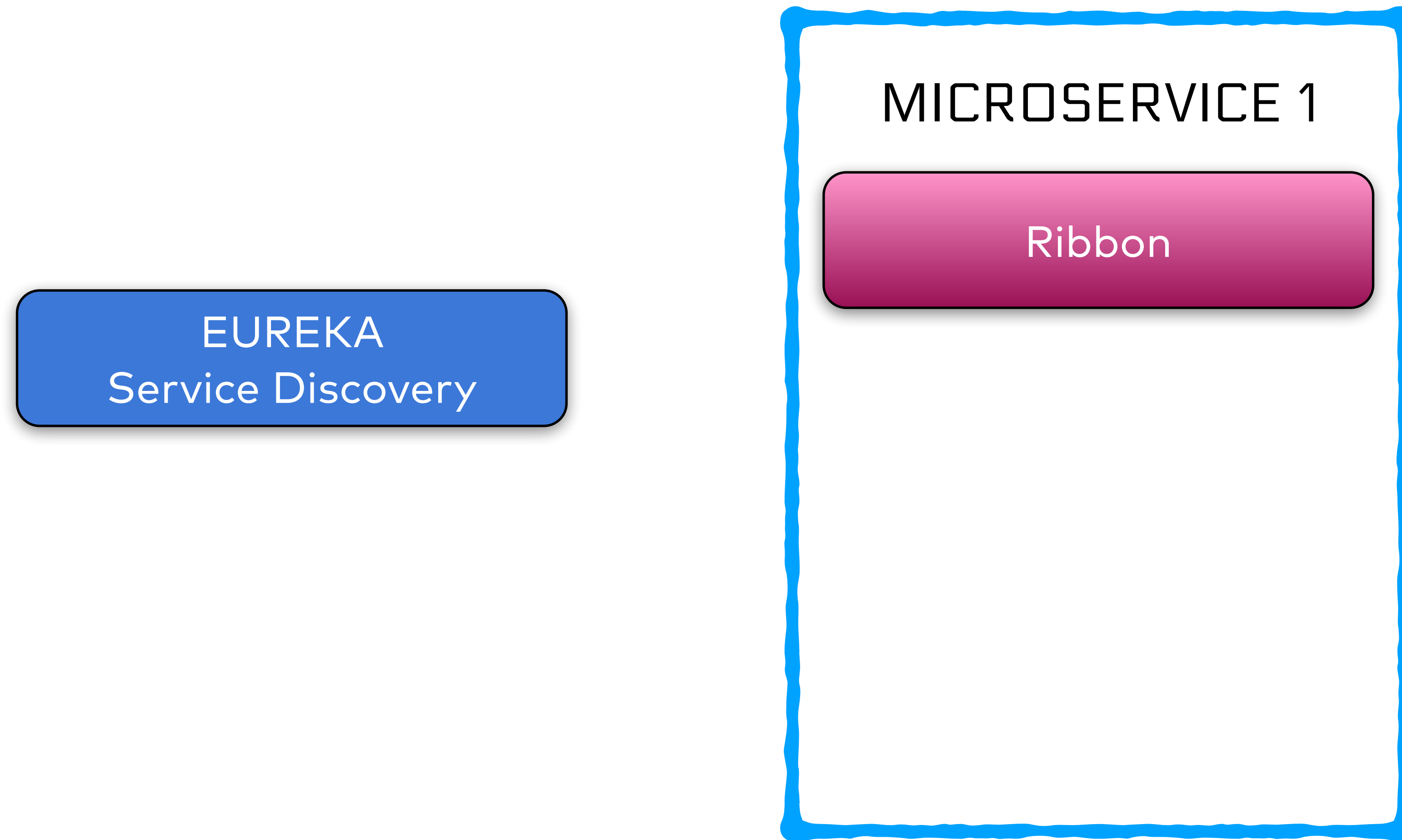


MICROSERVICE 1

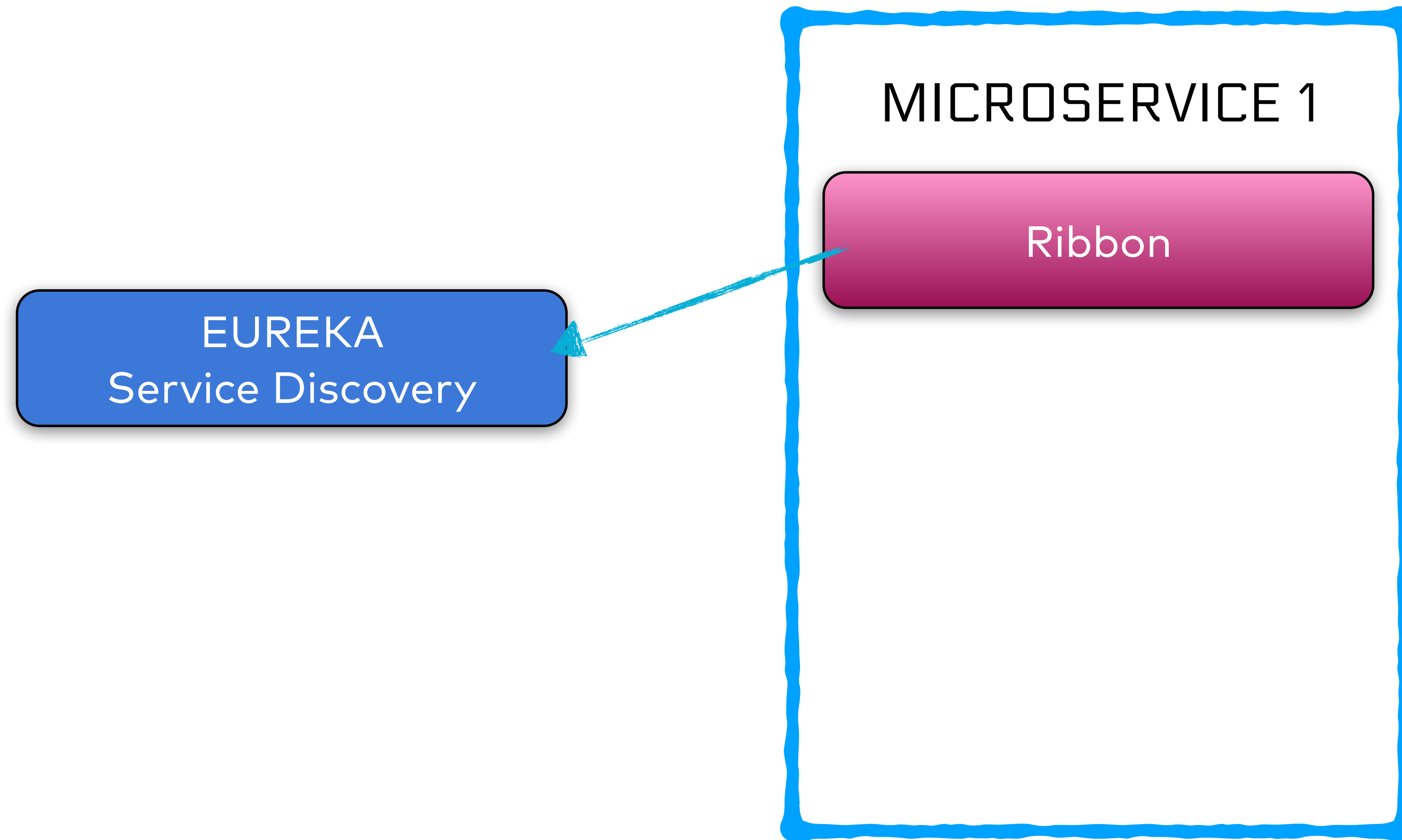
KNOWN NETWORK PROBLEMS



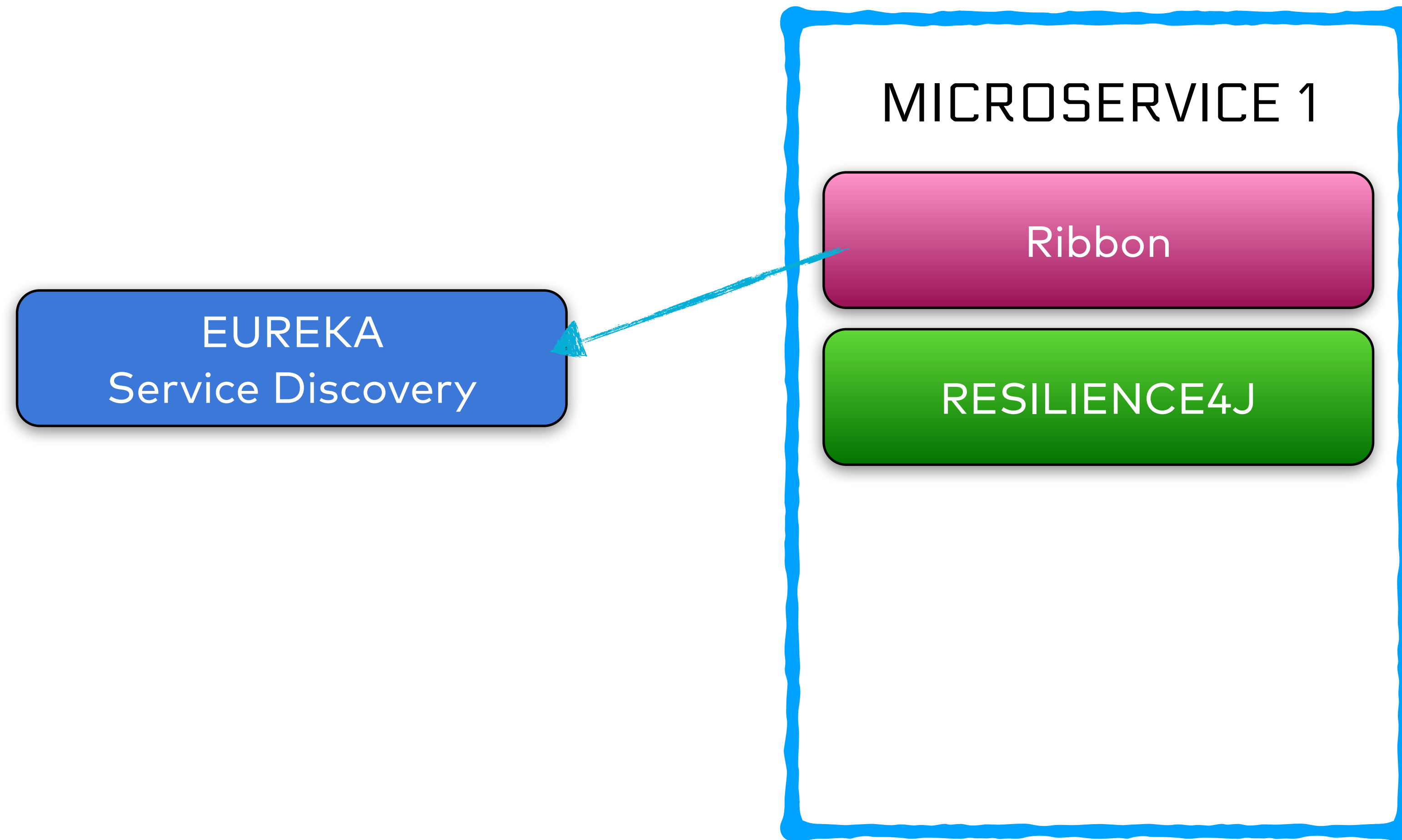
KNOWN NETWORK PROBLEMS



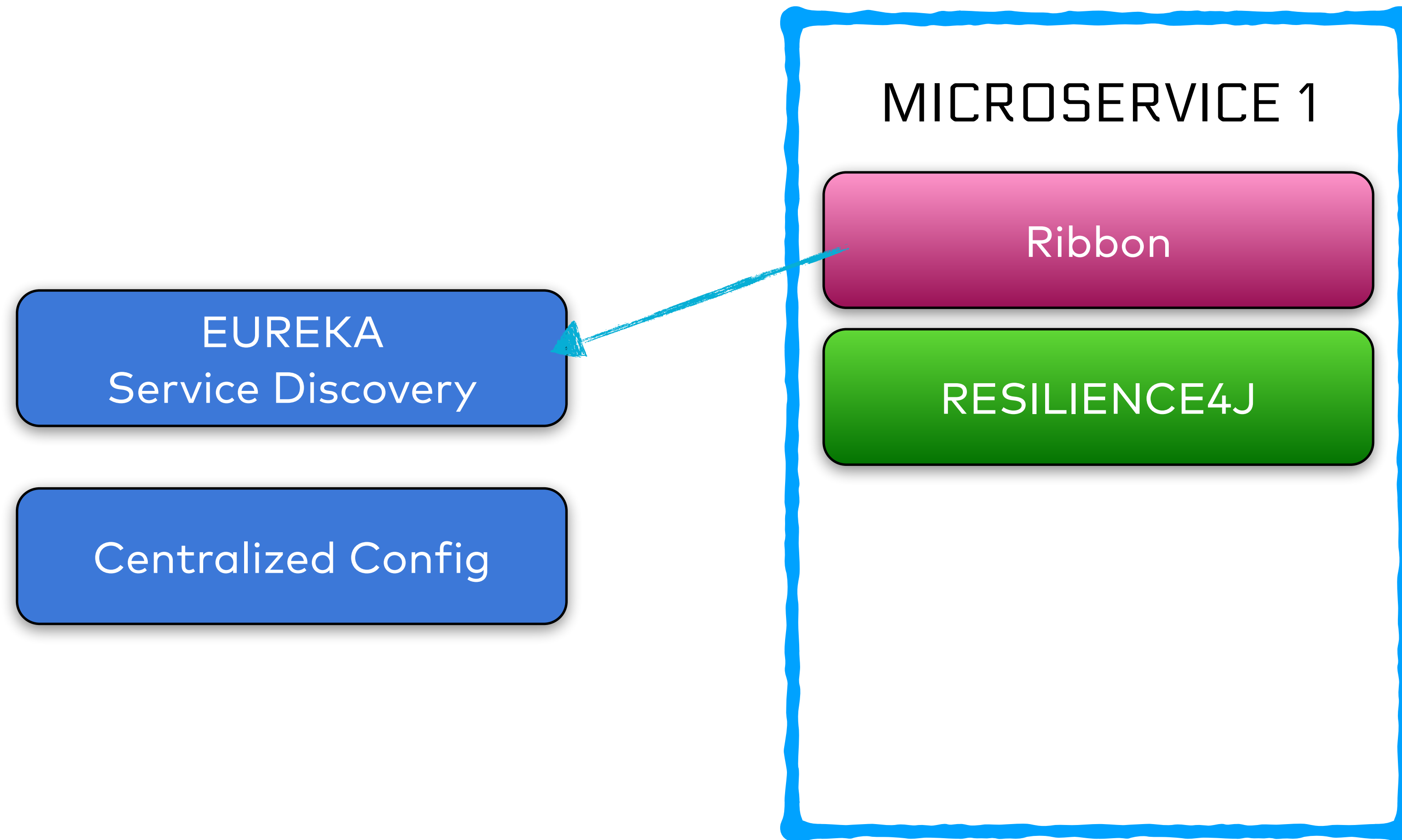
KNOWN NETWORK PROBLEMS



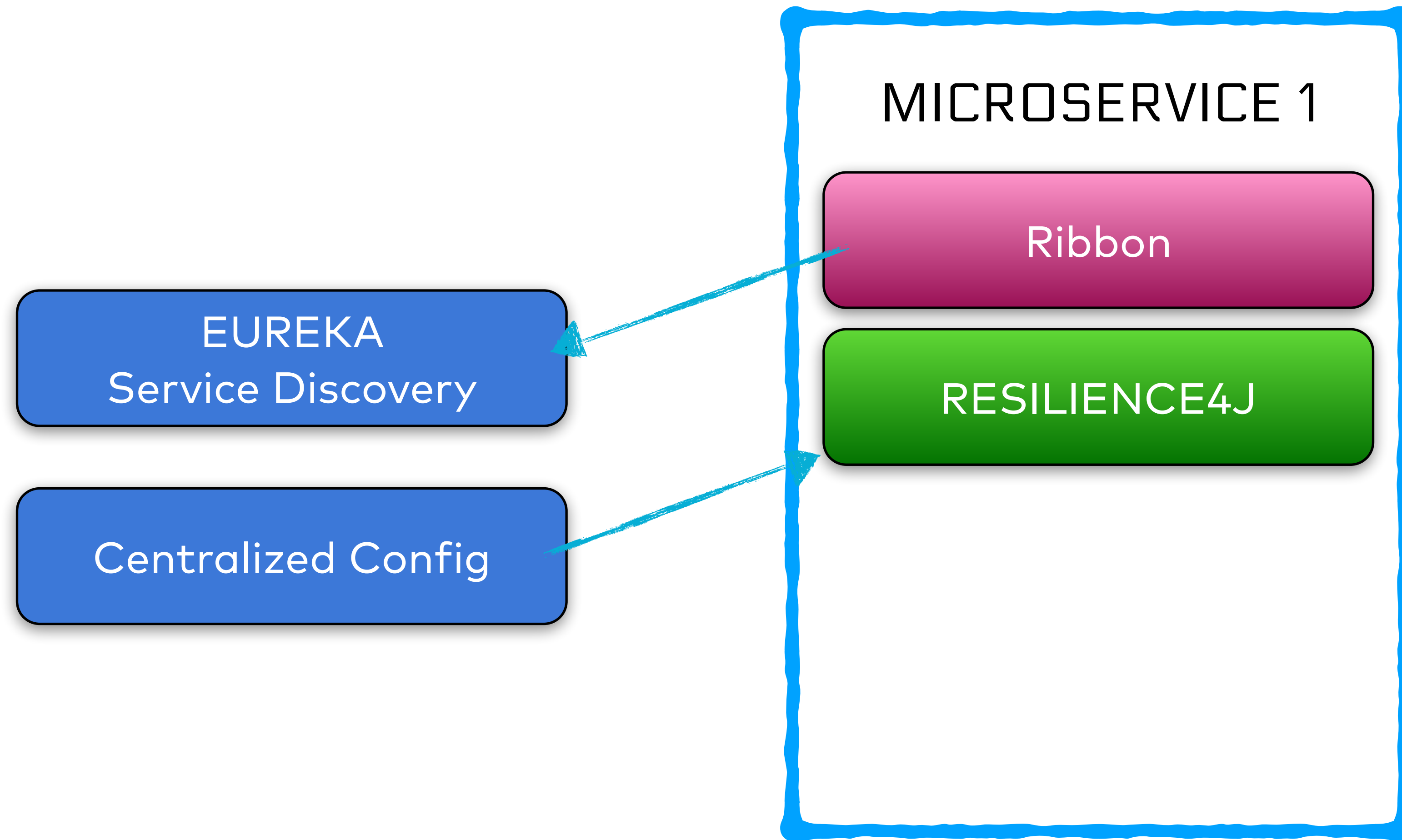
KNOWN NETWORK PROBLEMS



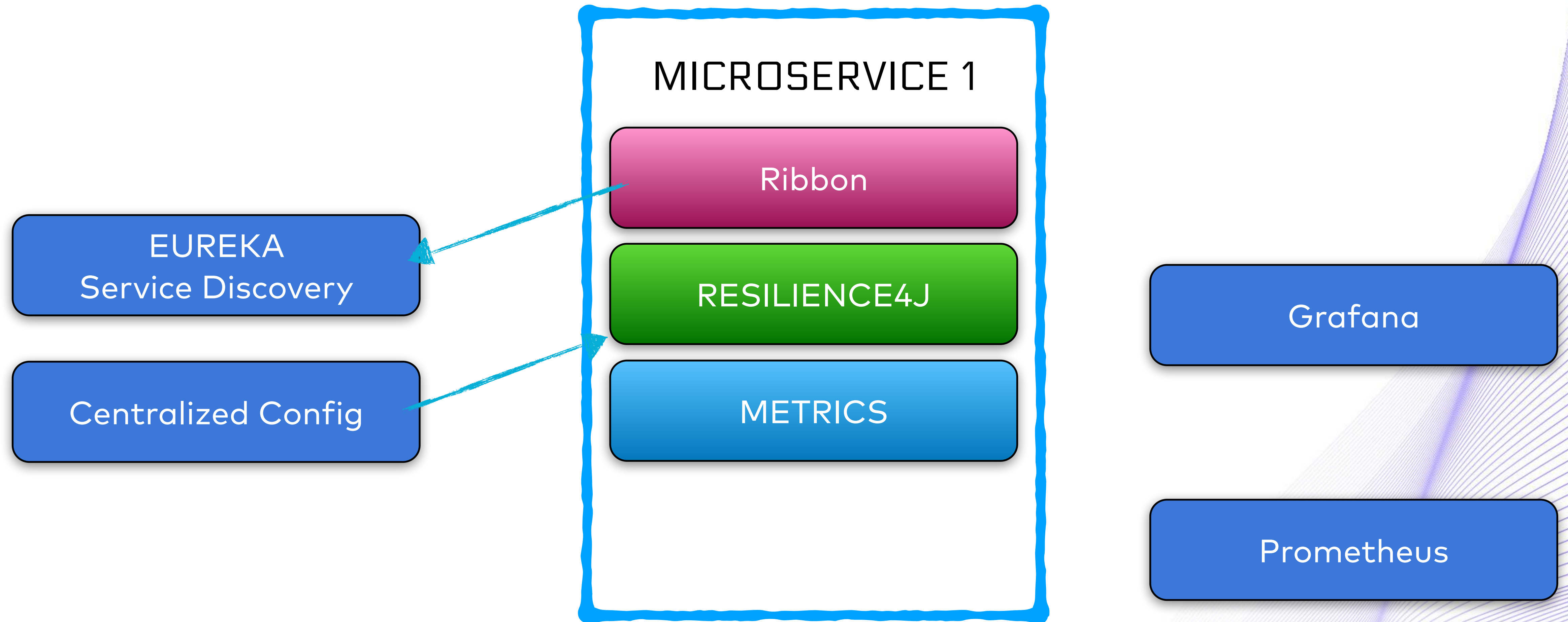
KNOWN NETWORK PROBLEMS



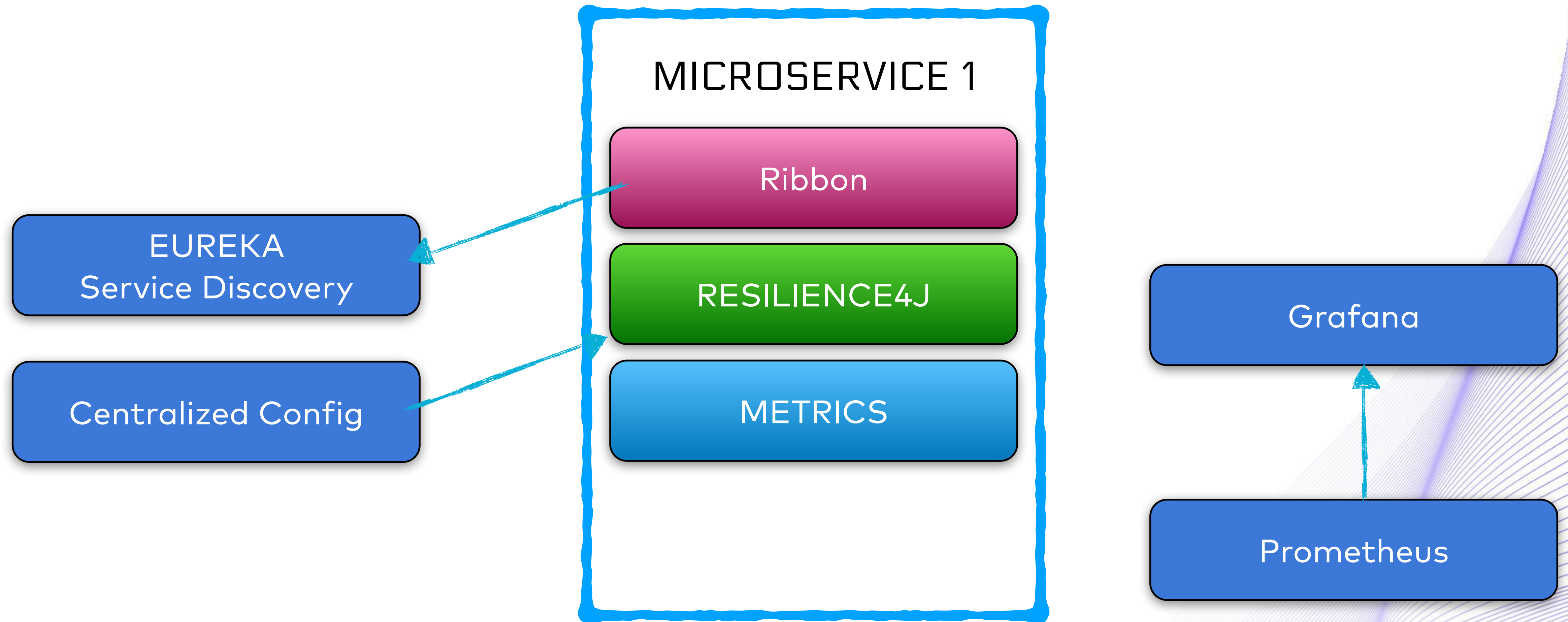
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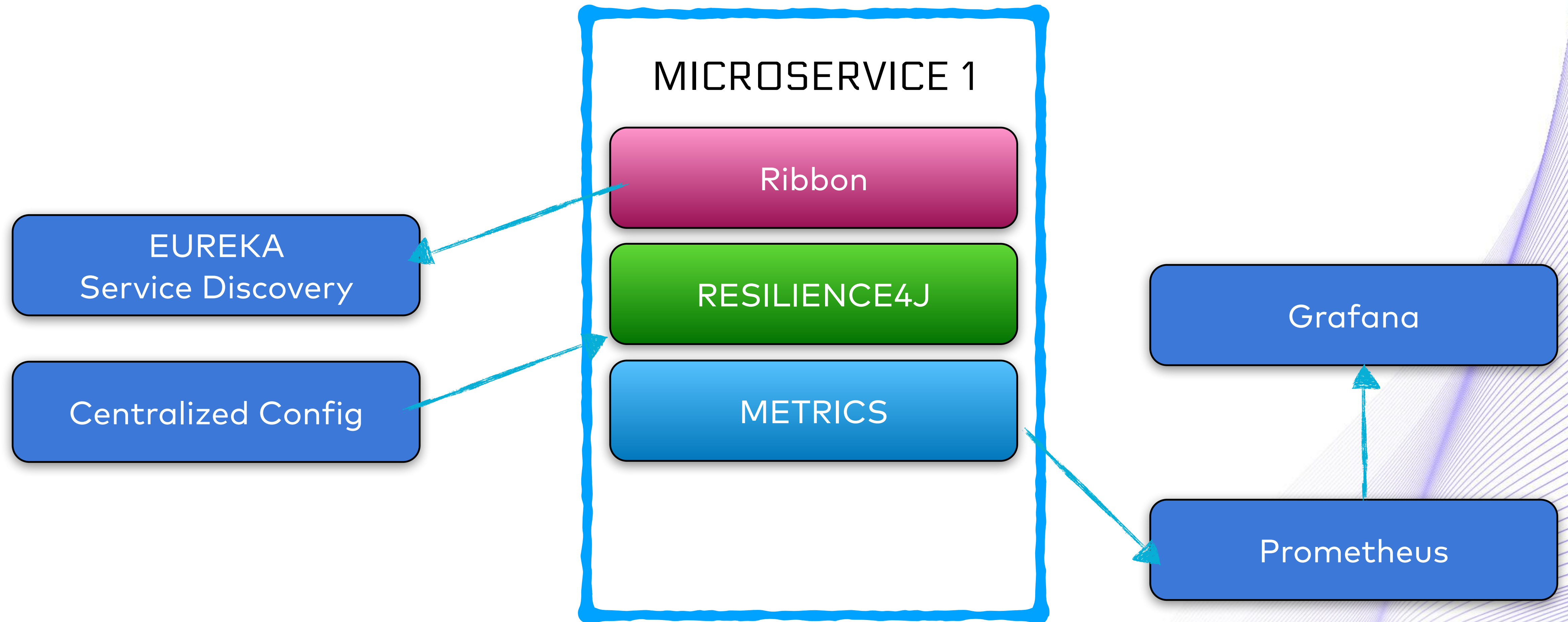
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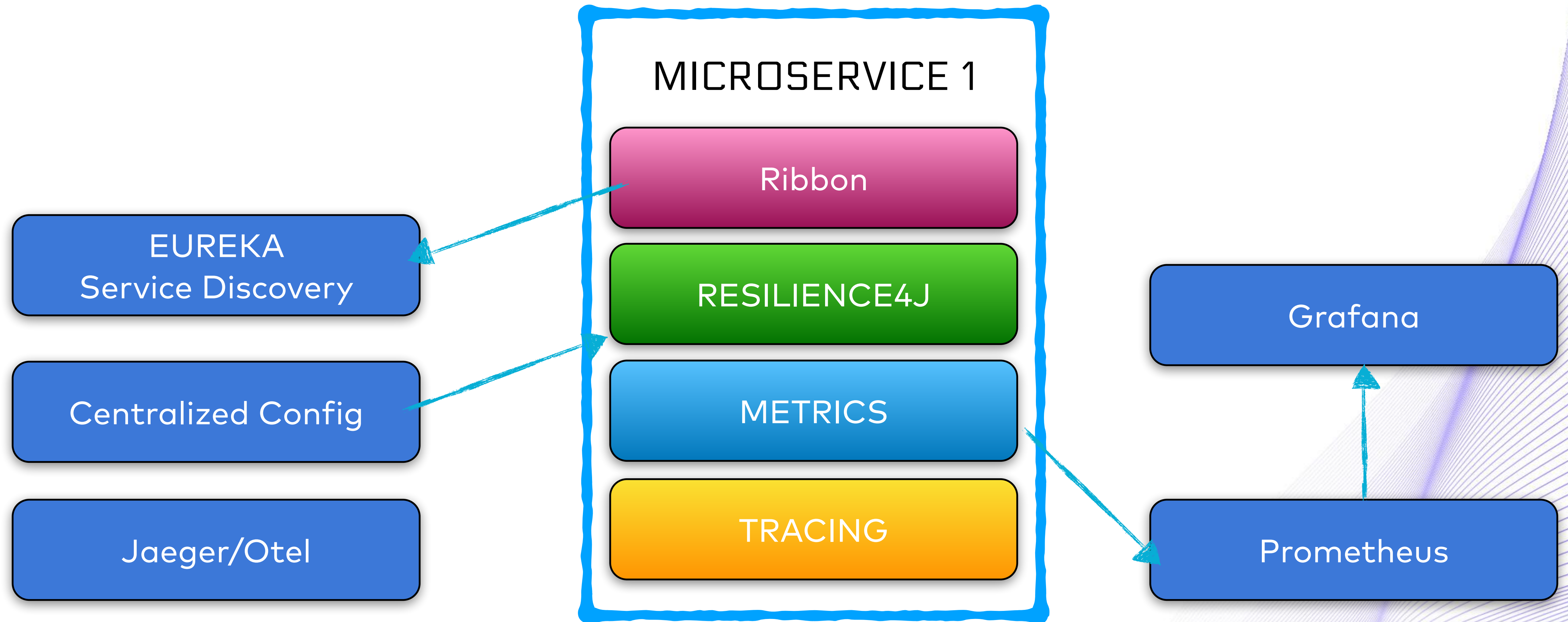
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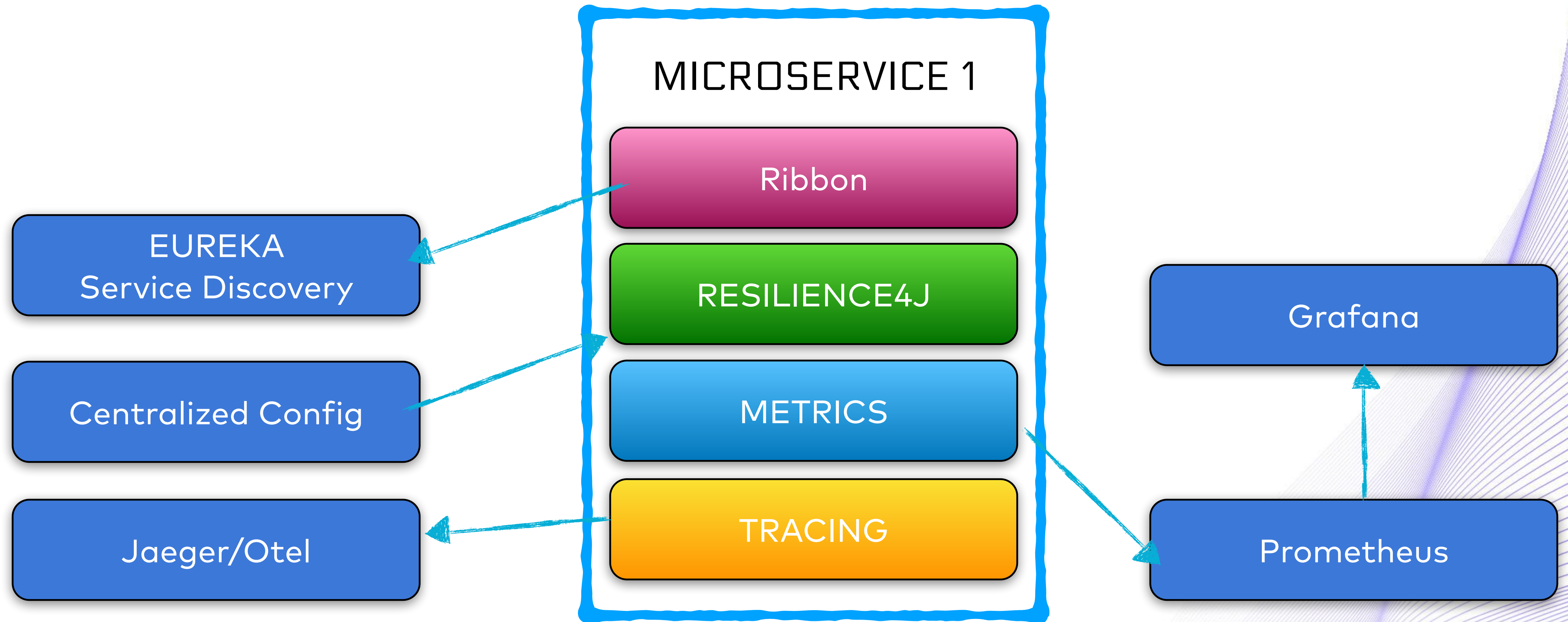
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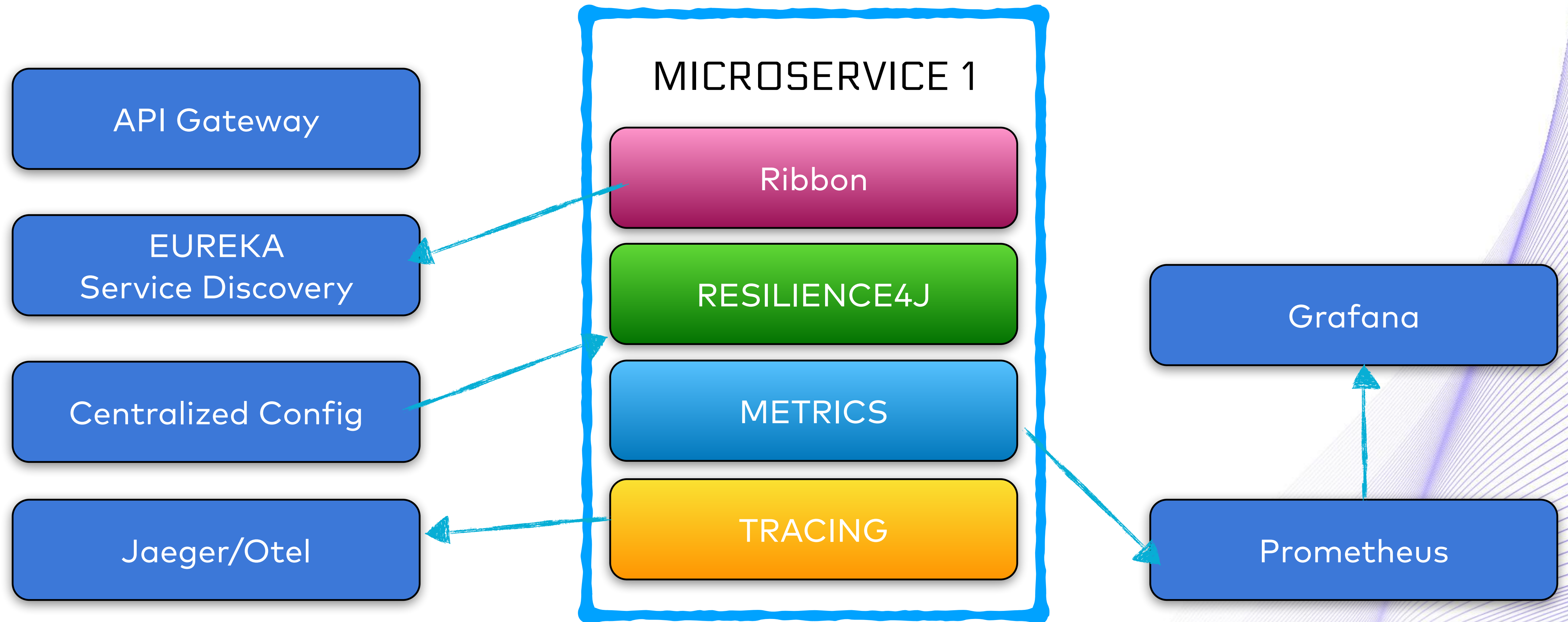
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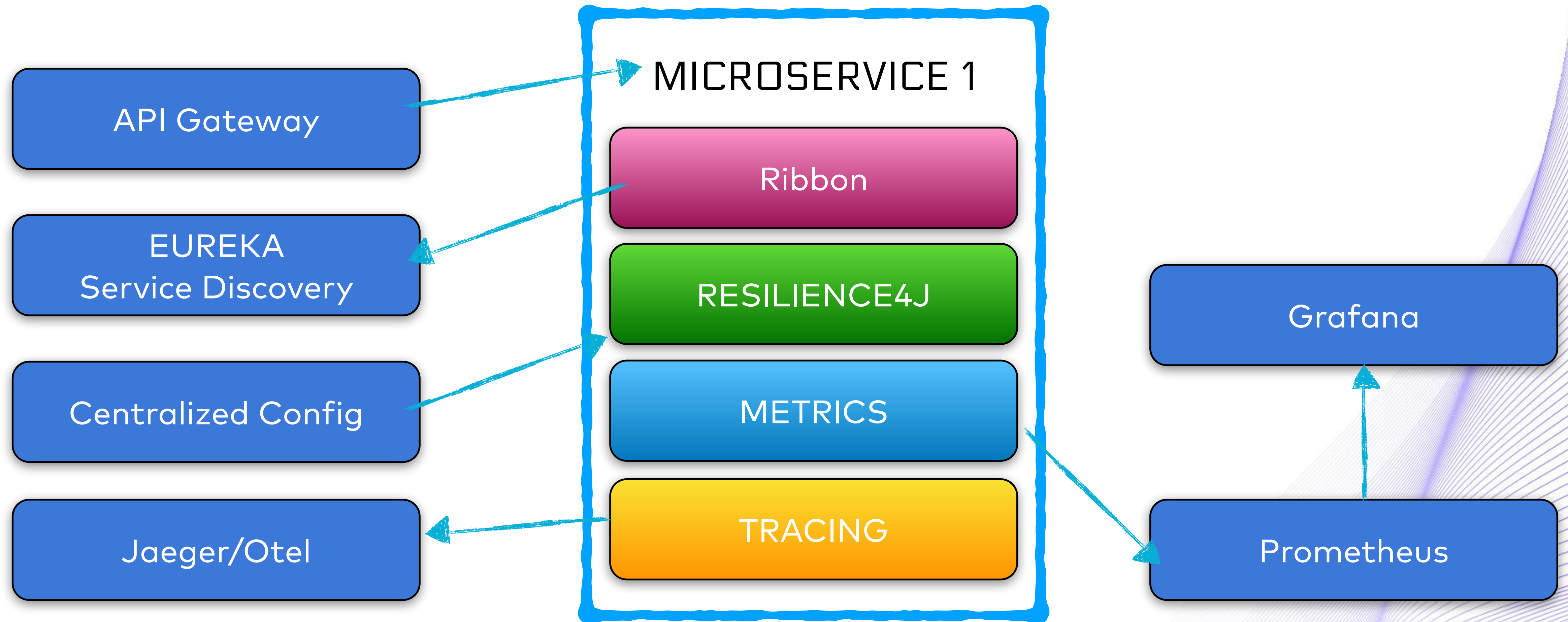
KNOWN NETWORK PROBLEMS



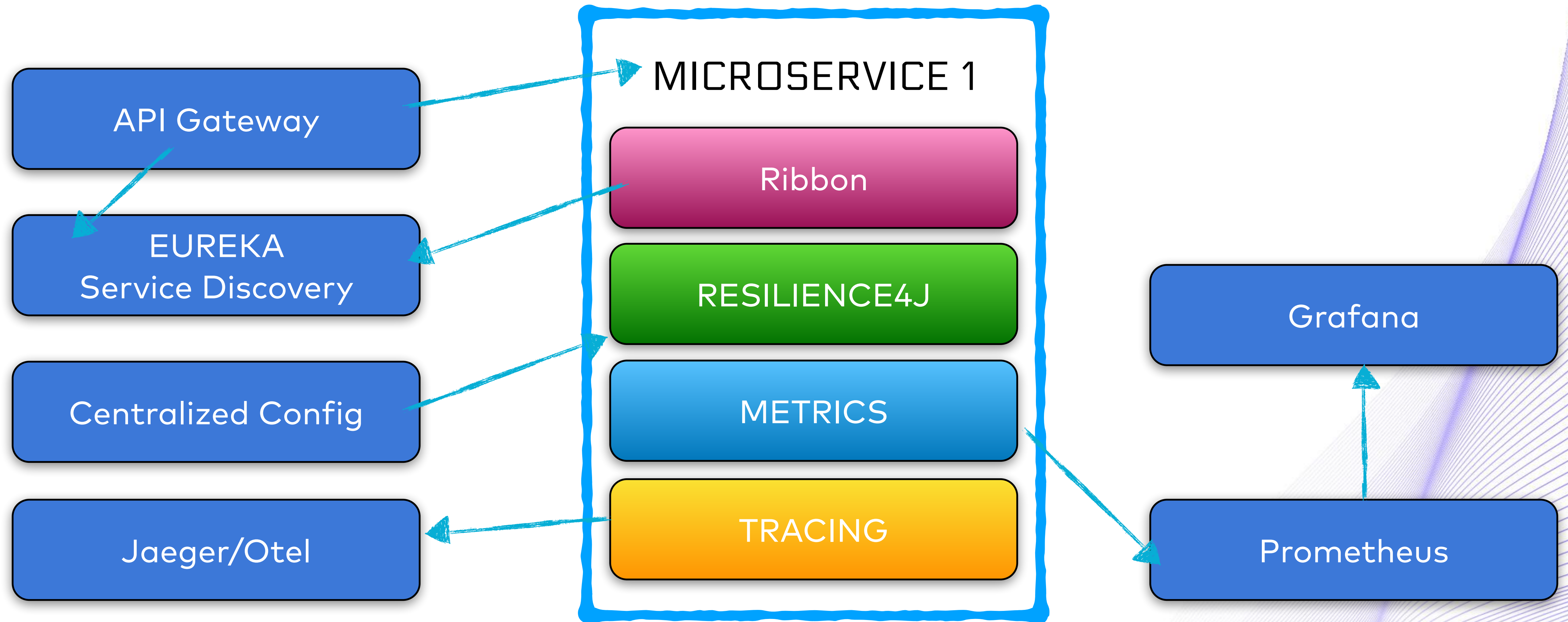
KNOWN NETWORK PROBLEMS



KNOWN NETWORK PROBLEMS



KNOWN NETWORK PROBLEMS



BUILD ONCE, USE EVERYWHERE

MICROSERVICE 1

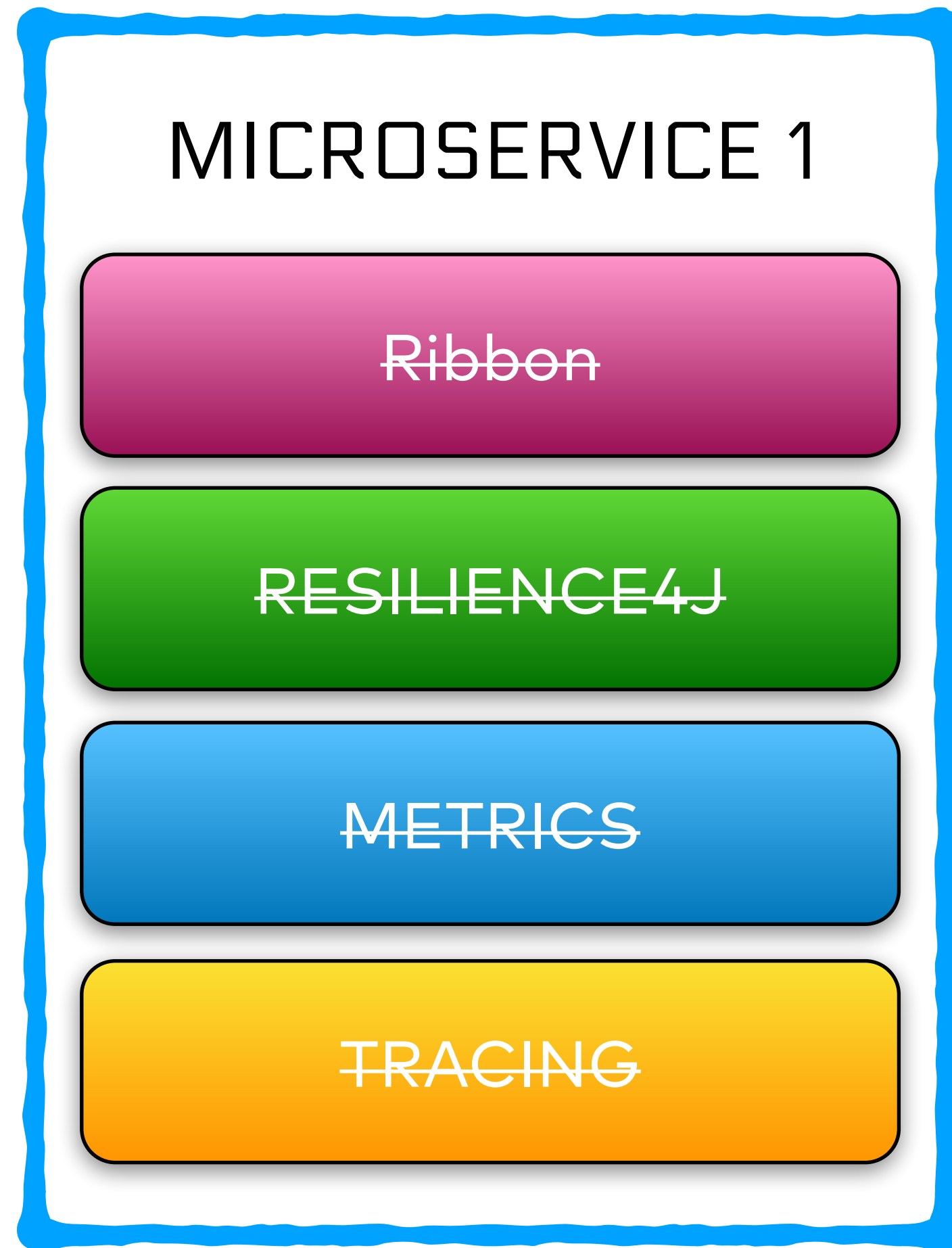
Ribbon

RESILIENCE4J

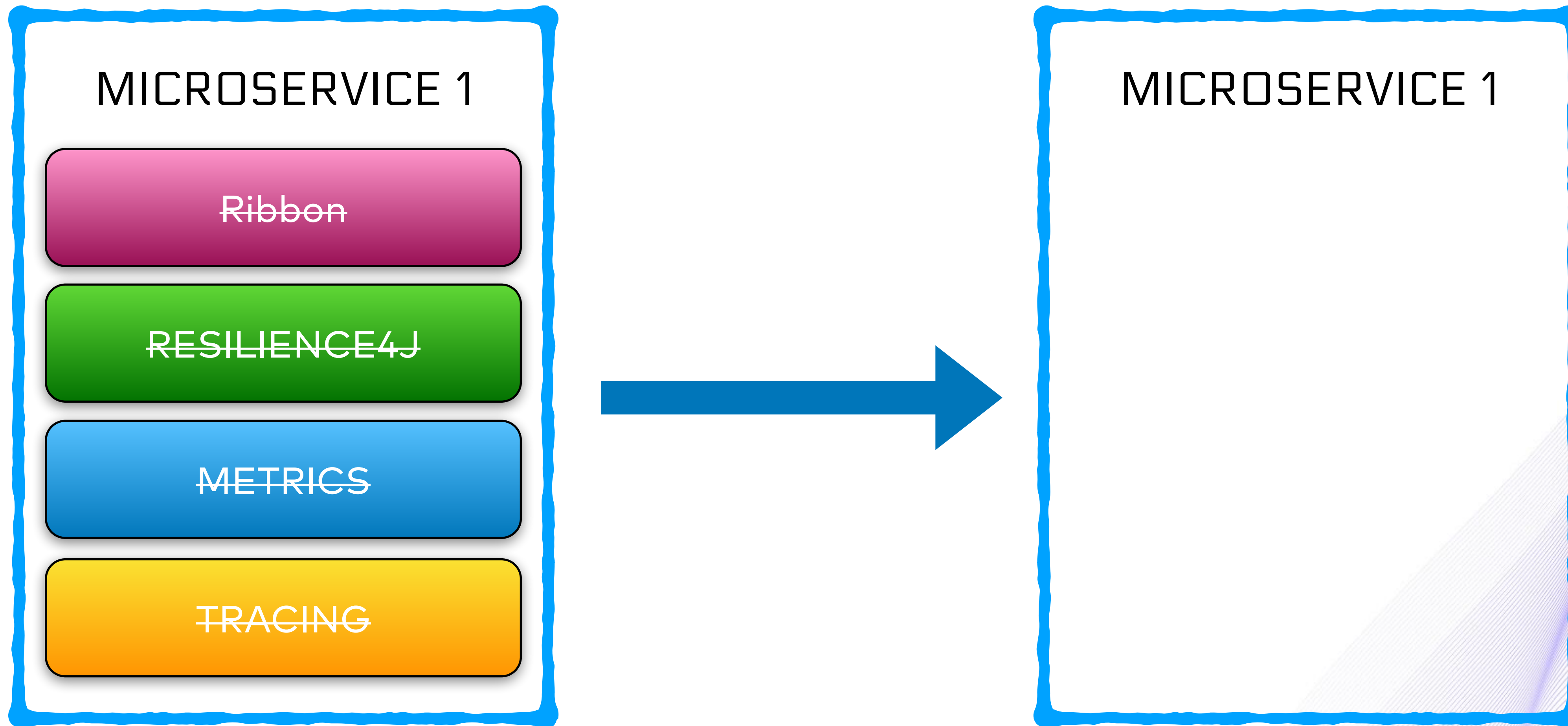
METRICS

TRACING

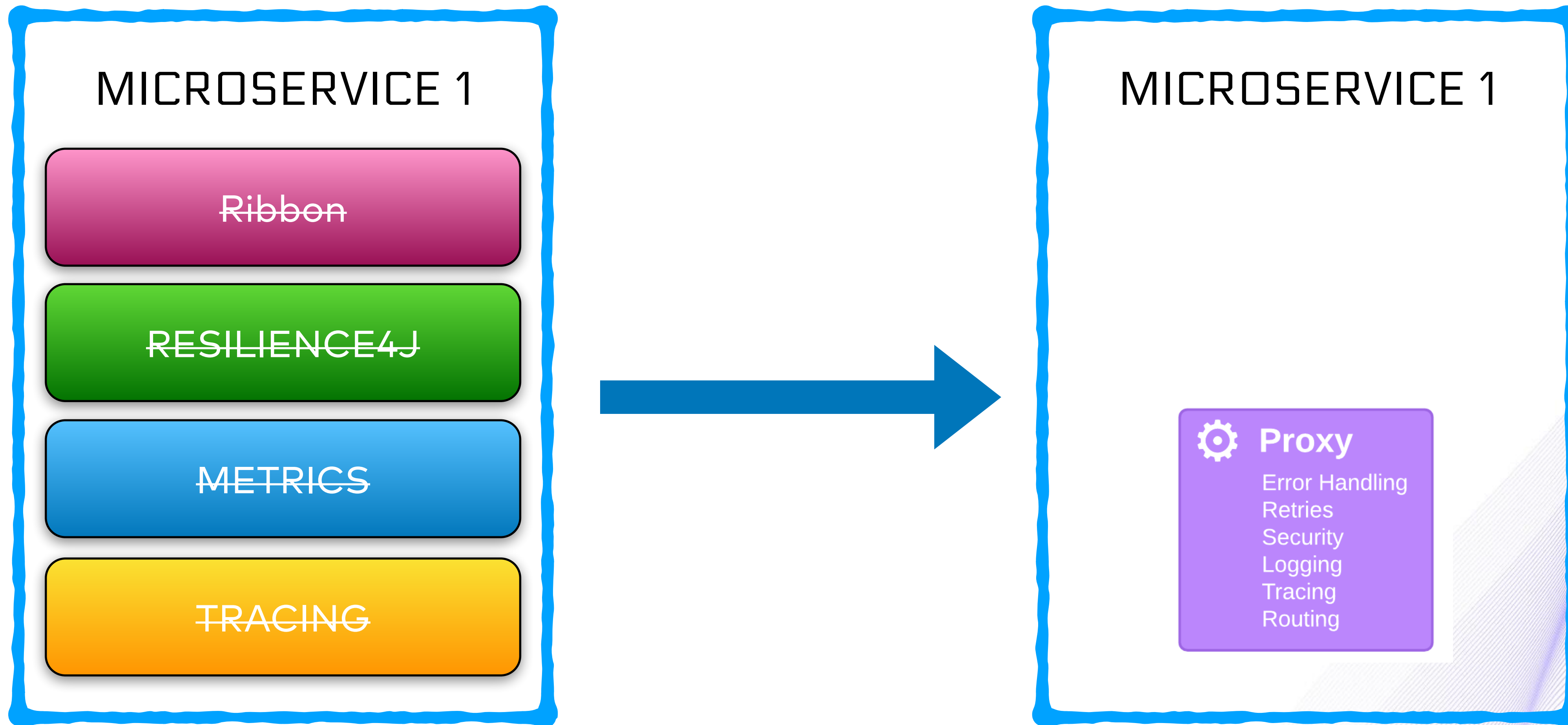
BUILD ONCE, USE EVERYWHERE

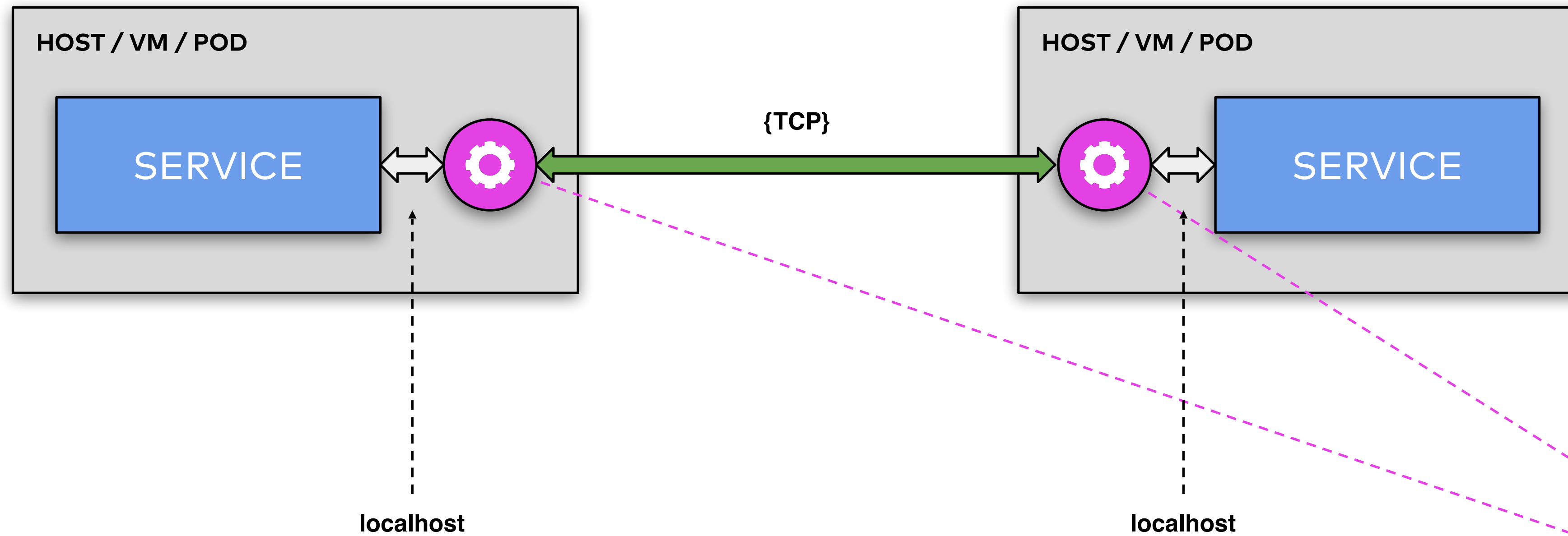


BUILD ONCE, USE EVERYWHERE



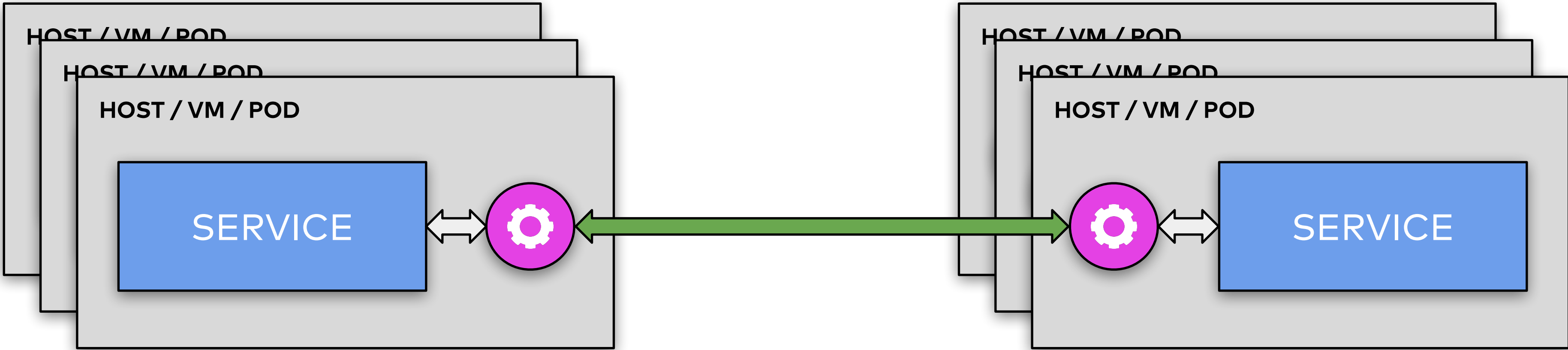
BUILD ONCE, USE EVERYWHERE

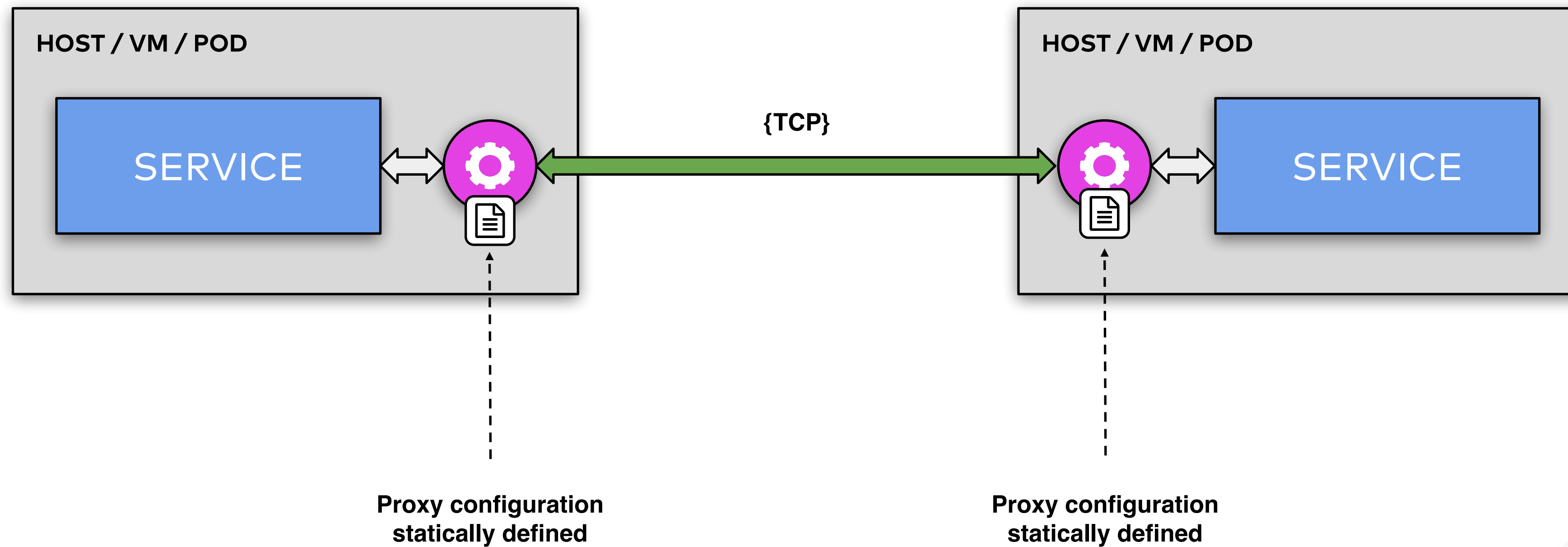


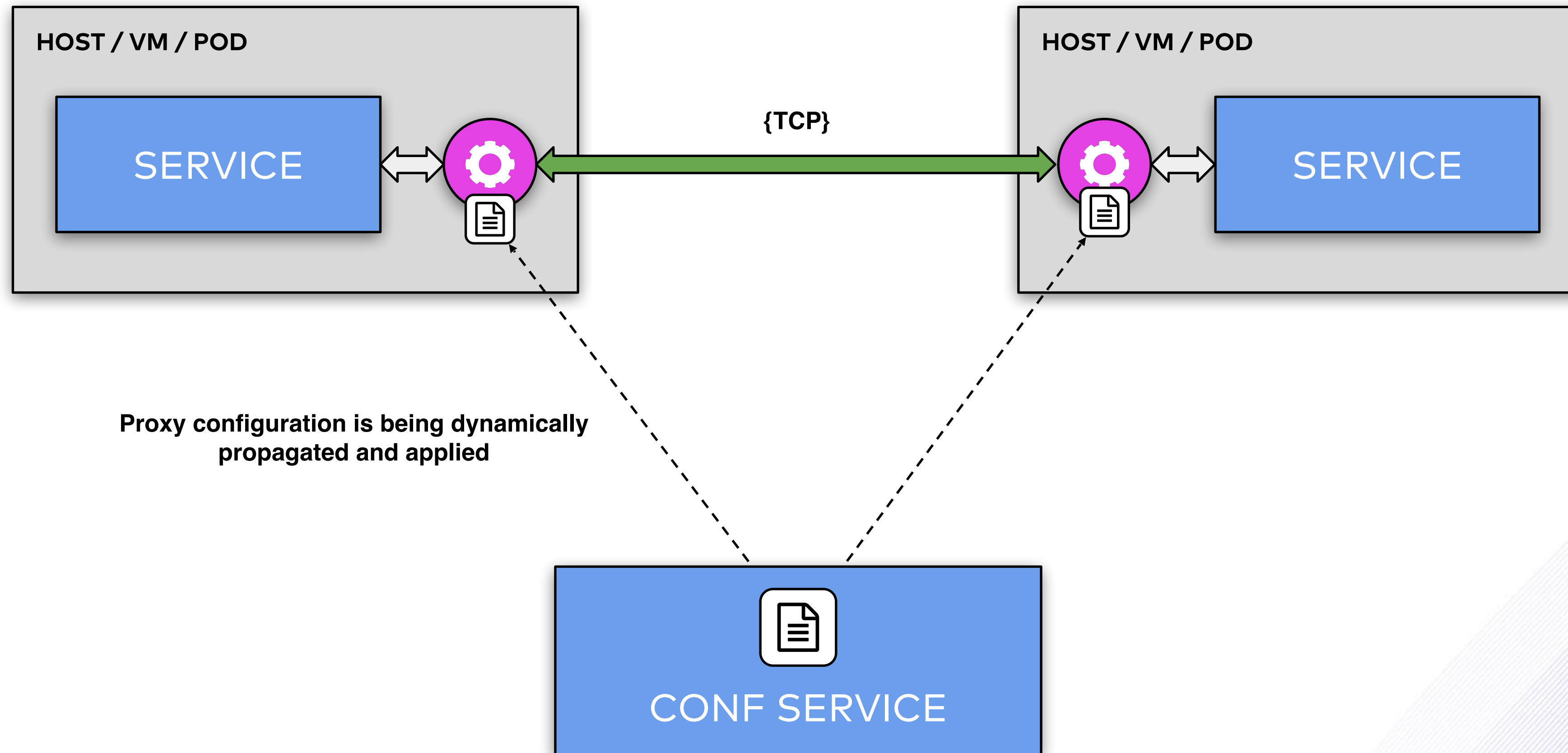


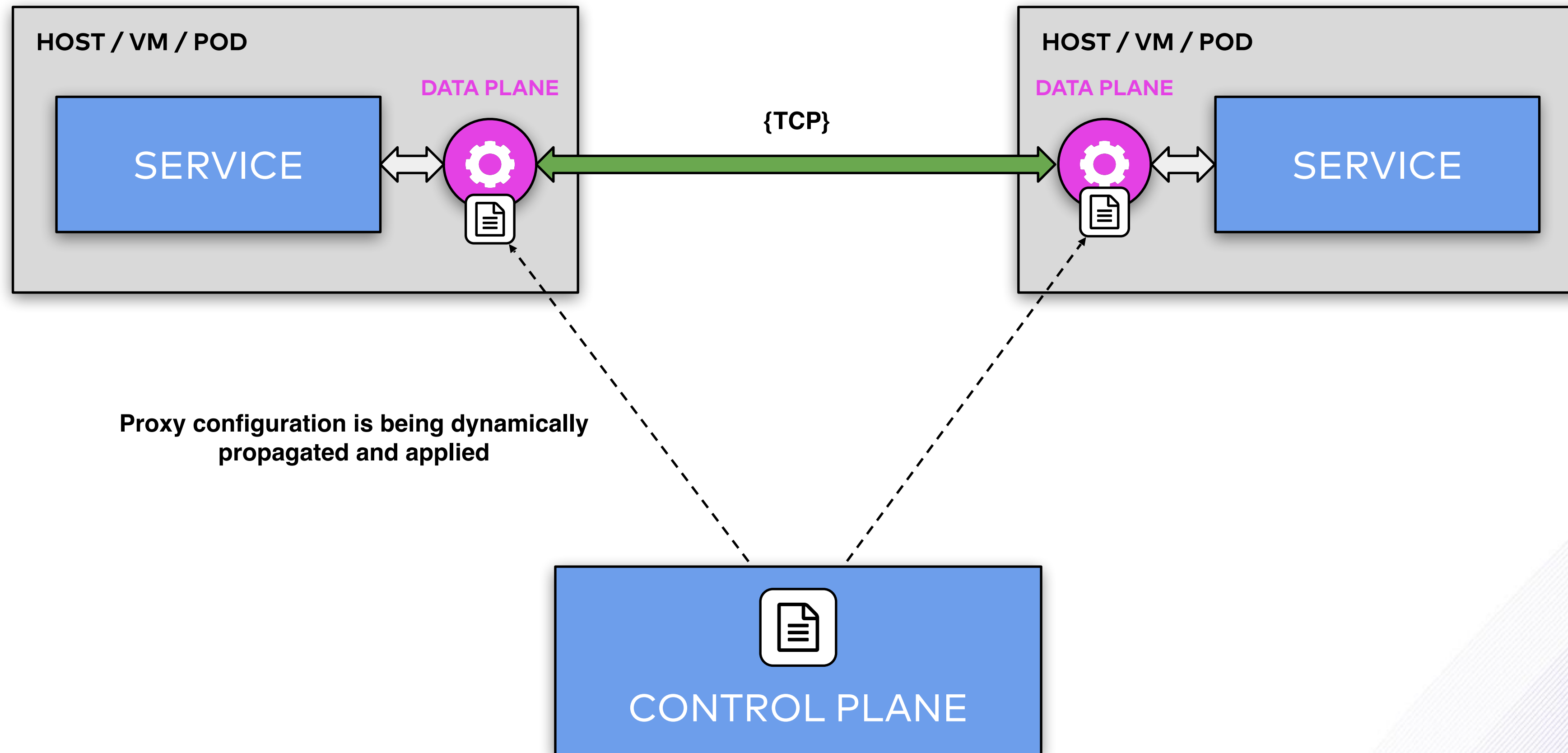
-  **Proxy**
- Error Handling
- Retries
- Security
- Logging
- Tracing
- Routing

ONE INSTANCE OF PROXY ON EVERY REPLICA OF EVERY SERVICE

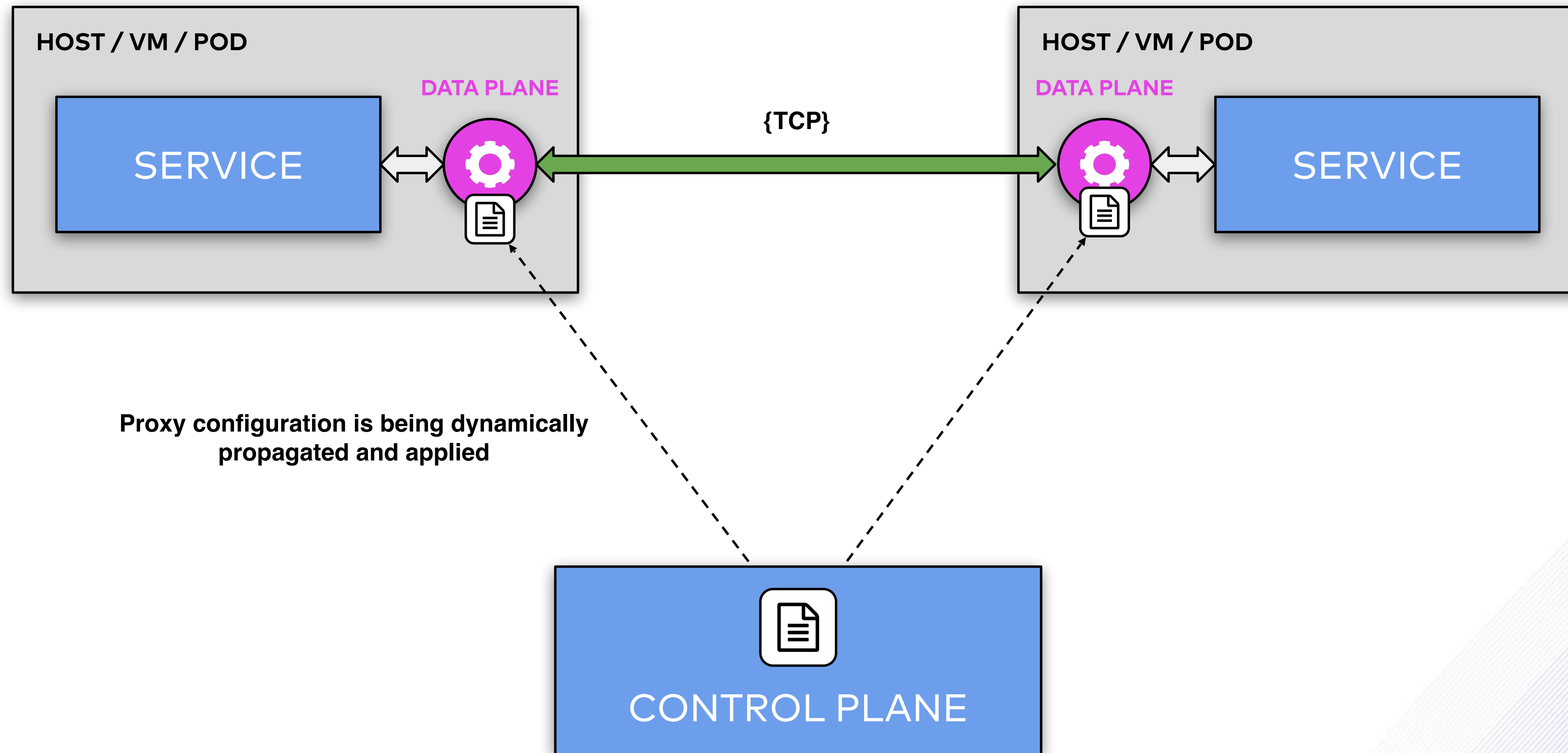


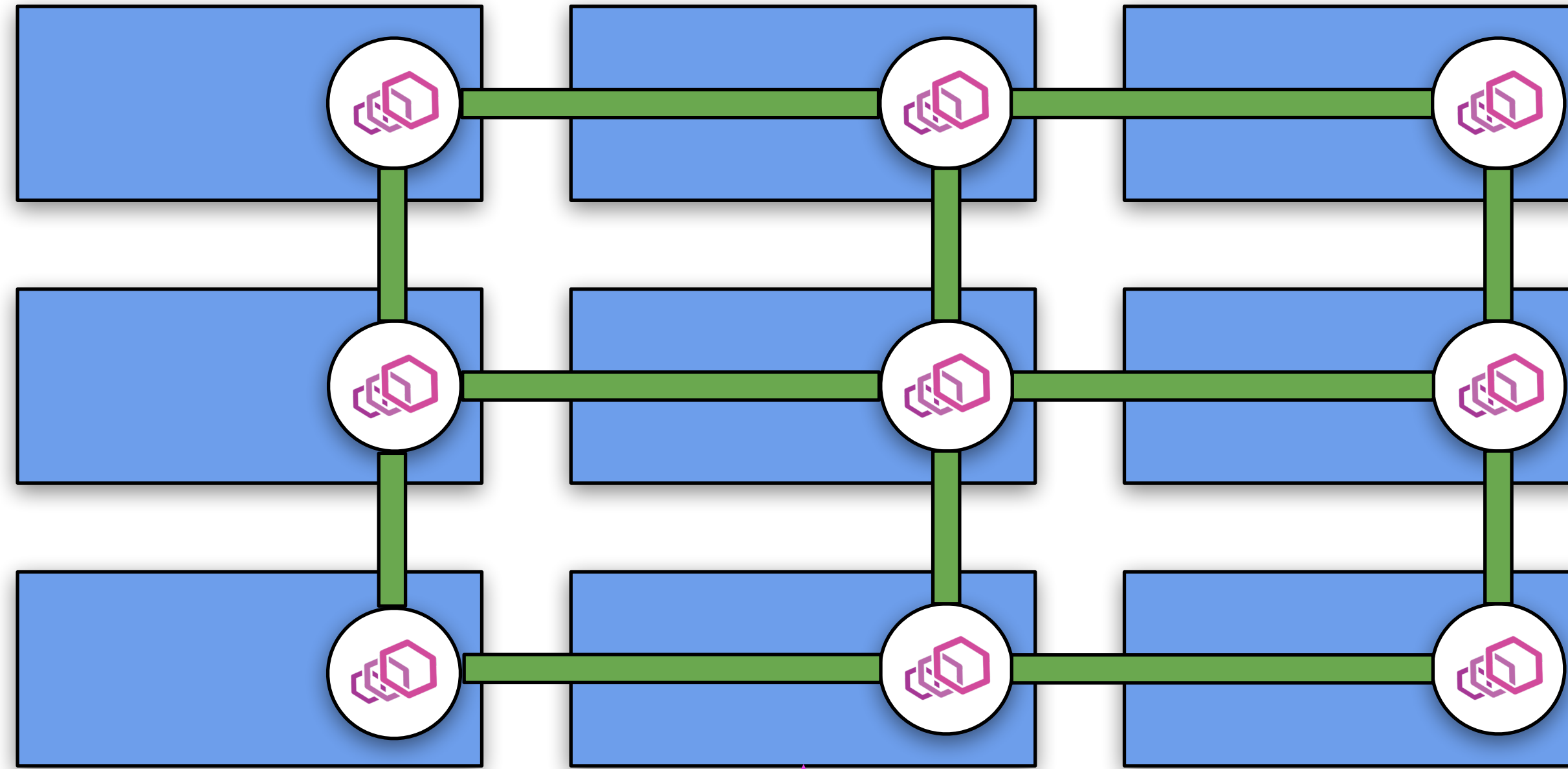






SERVICE MESH





DATA PLANE: **envoyproxy.io**
CONTROL PLANE: **kuma.io**



STOP! Demo time!

Please, subscribe to my YouTube channel TM

The screenshot shows a YouTube channel page for 'Kong's Kubernetes Ingress Controller'. The channel has 14 videos and 1,202 views, last updated on Mar 31, 2023. The main video is titled 'What's new in KIC 2.9? Gateway API: GRPCRoute' with a duration of 4:26. Below the main video are five recommended videos:

1. What's new in Kong Ingress Controller 2.9 - GRPCRoute #gatewayapi #kubernetes #ingress #grpc
Kong • 108 views • 12 days ago
2. Introducing Kong Gateway Operator
Kong • 3.4K views • 5 months ago
3. Kong Builders - Kubernetes Ingress Controller: Expose TCP services with Kong
Kong • 1.3K views • Streamed 11 months ago
4. Kong Ingress Controller Feature Preview: Gateway API
Kong • 871 views • 1 year ago
5. Supercharge Kubernetes Ingress with Kong Ingress Controller | Presented (virtually) at NDC Oslo2021
Kong • 921 views • 1 year ago

Please, subscribe to my YouTube channel™



A screenshot of the YouTube channel homepage for 'Kong'. The page features a search bar at the top, a navigation menu on the left with icons for Home, Shorts, and Subscriptions, and a main content area. A large video thumbnail is featured prominently, titled 'What's new in KIC 2.9? Gateway API: GRPCRoute'. Below it, a list of videos is shown, including 'What's new in Kong Ingress Controller in KIC 2.9?' and 'Introducing Kong Gateway Operator 101'.

<https://youtube.com/konginc>

A screenshot of a YouTube playlist titled 'Kong'. The playlist has 14 videos and 1,202 views, last updated on Mar 31, 2023. It includes playback controls like 'Play all' and 'Shuffle'. A list of videos is displayed, including 'Kong Ingress Controller Feature Preview: Gateway API' and 'Supercharge Kubernetes Ingress Presented (virtually) at NDC Oslo2021'.

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